

REMARKS/ARGUMENTS

1. INTRODUCTION

Clarifying amendments have been made to claims 3, 5 and 22 as shown in the preceding listing of the claims. Claims 1-22 are currently pending. Applicants respectfully request further examination and reconsideration of the application in view of the following arguments.

2. CLAIM OBJECTIONS

In the office action, the Examiner objected to the specification as lacking antecedent report to previously amended claim 5 and to an informality in claim 22. Claims 3 and 5 have each been amended to overcome these objections.

3. CLAIM REJECTIONS – 35 U.S.C. § 112

Claim 3 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claim 3 has been amended to overcome this rejection.

4. CLAIM REJECTIONS – 35 U.S.C. § 103

Claims 1-22 have been rejected under 35 USC § 103(a) as being unpatentable over Olson (US 6,447,024) in view of Rea et al (US 5,542,717). Applicants respectfully submit that the rejection is improper because the Examiner has failed to establish a prima facie case of obviousness with respect to these claims. Accordingly, reconsideration and withdrawal of such rejections is respectfully requested.

“Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case.” MPEP § 2141 (emphasis in original).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference

(or references when combined) must teach or suggest all of the claim limitations.

MPEP § 2143. Applicants submit that the Examiner has failed to establish a prima facie case of obviousness with respect to pending claims 1-22.

Regarding independent claims 1, 16 and 20, the Examiner has indicated that Olson discloses a connector assembly that comprises, among other things, a retainer member (12) surrounding a portion of a male member, the retainer member including a plurality of circumferentially spaced resilient internal retainer arms each having a distal end for simultaneously engaging the male member external shoulder and the female member internal shoulder when the male member is within the female member. As the Examiner notes, Olson fails to teach an external flange. The Examiner has taken the position that Rea et al teaches that it is known to provide a similar pipe coupling having an external flange, which permits secure connection of the coupling to the female member, and so it would have been obvious to modify Olson to include an external flange as taught by Rea et al in order to better retain the retainer member on the female member.

It is respectfully submitted that the Section 103 rejection of independent claims 1, 16 and 20 is not a proper rejection and should be withdrawn. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination - obviousness is not established merely by combining references having different individual elements of pending claims. The present Section 103 rejection is based on a combination of teachings from multiple patents in an attempt to arrive at the claimed invention, however as will be explained in greater detail below, there is no teaching nor suggestion in the cited art for the combination, and thus the Section 103 rejections appear to be improperly based on hindsight reconstructions in which isolated disclosures have been picked and chosen in an attempt to deprecate the presently claimed invention.

In the connector assembly of claim 1, the retainer member includes two securing mechanisms for acting against axial separation of the male and female members: (a) internal

retainer arms for simultaneously engaging the male member external shoulder and the female member internal shoulder, and (b) the external annular flange having an inwardly extending protrusion on its distal end for engaging the female member external shoulder. The external flange can also act against lateral side to side radial or rocking movement of the male member 12 relative to the female member 14, thereby reducing wear on the seal ring (see Para [0034] of application as filed). The use of two complimentary securing mechanisms such as is specified in claim 1 is neither disclosed in nor remotely suggested by the cited references.

The Examiner has stated, when attempting to establish motivation for modifying Olson with Rea et al. that Rea et al teaches a similar pipe coupling to Olson. As explained in greater detail below, Olson and Rea et al. in fact describe coupling systems that are in fact fundamentally different from each other such that a person of ordinary skill in the art would not, when looking at Olson and Rea et al. without the hindsight benefit of having reviewed the applicant's present disclosure, think of modifying Olson with features shown in Rea et al.

Turning first to Olson, such reference discloses a metal spring clip retainer having internal retainer arms for simultaneously engaging the male member external shoulder and the female member internal shoulder. The metal spring clip retainer in Olson relies solely on T-bars 93 on the retainer arms for simultaneously engaging the male and female coupling members and preventing their separation. As indicated at column 3, lines 42-47, Olson discloses the use of tabs 96 on the base b4 for stabilizing the retainer clip and discouraging radial shifting of the retainer clip. Olson includes no teaching or suggestion that would indicate that the structure disclosed in Olson needs or would benefit from any features beyond T-bars 93 and tabs 96 to add security to the connection between the retainer and the female member, or to act against radial movement.

Regarding Rea et al., the retainer structure for the coupling rather than being of unitary structure includes three separate components, namely a cap 18, a release member 14 and a seal retainer 22, as best seen in Figure 3 of Rea et al. In Rea et al, the inner fingers 18d of cap 18 act solely on a ring on the male member 10 and do not contact the female member 16, with the outer fingers 18a providing the only engagement with the female member 16. Thus, the retaining structures of Olson and Rea et al are in fact quite different. These differences are further

highlighted when the manner in which the respective couplings of Rea et al and Olson are used is considered.

Referring again to Figure 3 of Rea et al., in use the cap 18 is first snap fit mounted onto the female member 16 so that the external arms 18a latch onto the female member 16 and also retain the seal retainer 22 in place. Once the cap 18 is mounted to female member 16, the male member (carrying release member 14) is inserted into the cap until it snaps into place and is retained by internal arms 18d. (See Rea et al. column 4, line 60 – column 5, line 45). To remove the male member 10, the release member 14 is slid forward to radially outward displace inner arms 18d and release the male member 10 so that it can be withdrawn while the cap 18 stays mounted on the female member 16 (Rea et al column 5, lines 54-57). It is important to note that in Rea et al, the cap 18 is part of the female assembly 12 (see Rea column 3, lines 45-47) and in normal use the cap 18 stays mounted to the female member 16, serving an important function of keeping the seal retainer 22 in place even when the male member 10 is not present.

By contrast, in Olson, the retainer clip 12 must actually be mounted to and move with the male member 40, rather than being pre-mounted to female member and part of the female assembly as the cap 18 in Rea et al. The retainer clip 12 of Olson is mounted with the male member 40 into the female member 14 during joining of the coupling and then also removed with the male member 40 from the female member during separation of the male and female members. Given that in Rea et al. it is important that the cap 18 be a part of the female assembly and stay attached to the female member 16 to retain seal retainer 22 in place, it would be counter to the purpose of cap 18 to make it a part of the male assembly, which is what the modification suggested by the Examiner requires.

Thus, although Olson and Rea et al both disclose a type of snap in coupling, the Olson retainer works in and is used in a very different manner than Rea et al, such that it would not be apparent to modify Olson with Rea et al, especially in view of the statements in Rea et al all of the specific advantages provided by the Rea et al structure.

Another factor teaching away from the combination of Rea et al. and Olson is that they each explicitly teach the use of different materials and methods for making the retainer 12 of Olson and the cap 16 or Rea et al. At Column 3, lines 49-55, Olson states that “Preferably, the spring clip 12 is molded of powdered steel...”; and at Column 3, lines 65-66, Rea et al states that “Tubular cap 18 is preferably formed of a suitable high temperature plastic in an injection molding operation.”

Accordingly, it is respectfully submitted that the Examiner has failed to show a proper motivation, suggestion, or inventive for combining the references in the stated manner and accordingly a prima facie case of non-obvious has not been made.

It is this submitted that the present claims are patentable over the cited art and are in condition for allowance which is respectfully requested.

5. CONCLUSION

A genuine effort to resolve all issues has been made. For at least the above cited reasons, all claims pending in this Application are now believed to be allowable. Applicants respectfully request that any questions or concerns be directed to Applicants’ undersigned attorney.

Respectfully submitted,

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